FIG.1

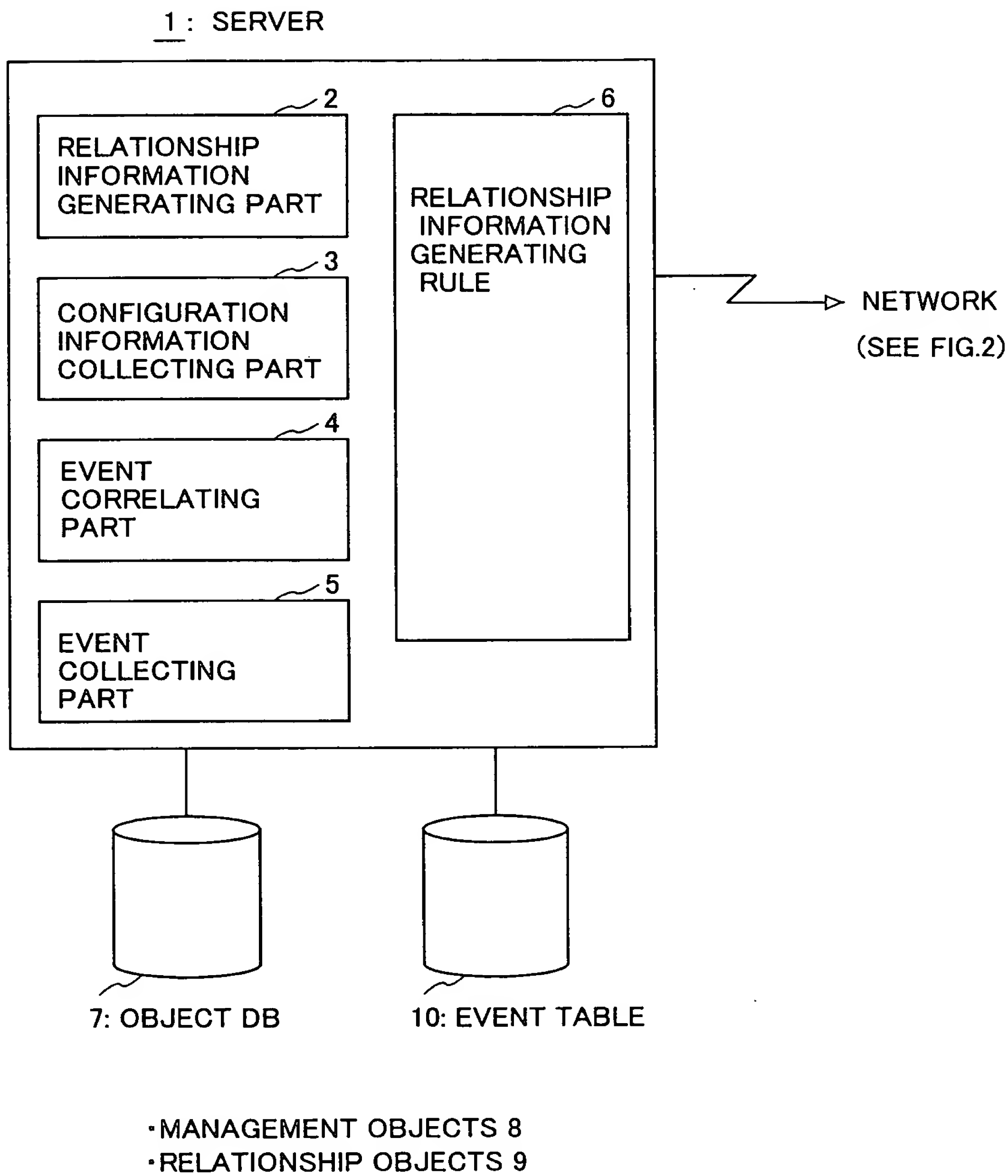

1: SERVER
RELATIONSHIP INFORMATION GENERATING PART
2
CONFIGURATION INFORMATION COLLECTING PART
3
EVENT CORRELATING PART
4
EVENT COLLECTING PART
5
RELATIONSHIP INFORMATION GENERATING RULE
6
NETWORK
(SEE FIG.2)
7: OBJECT DB
10: EVENT TABLE
·MANAGEMENT OBJECTS 8
·RELATIONSHIP OBJECTS 9

FIG.2

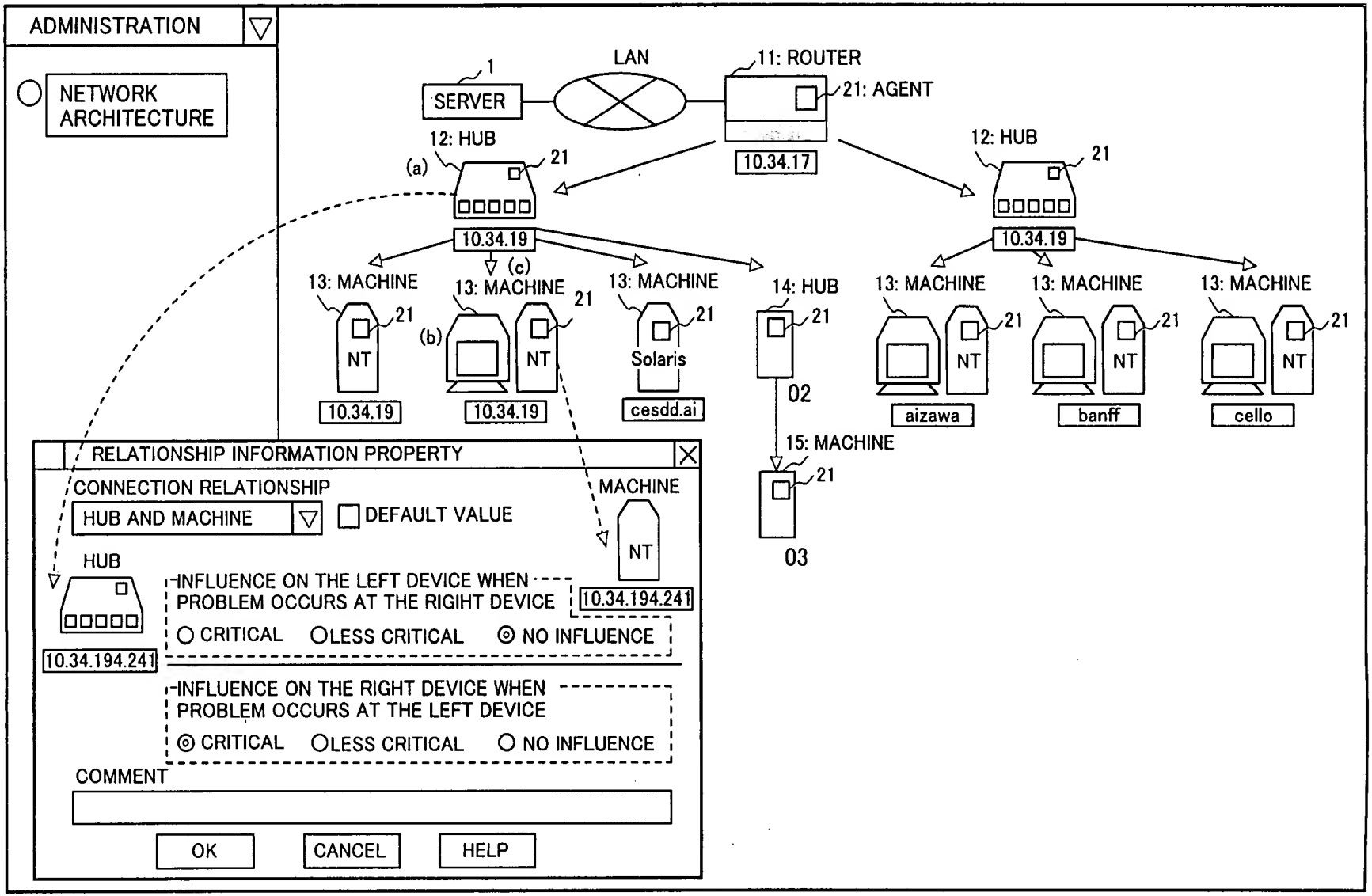

ADMINISTRATION
NETWORK ARCHITECTURE
1
SERVER
LAN
11: ROUTER
21: AGENT
10.34.17
12: HUB
(a)
21
10.34.19
(c)
(b)
13: MACHINE
NT
Solaris
cesdd.ai
14: HUB
02
15: MACHINE
03
aizawa
banff
cello
RELATIONSHIP INFORMATION PROPERTY
CONNECTION RELATIONSHIP
HUB AND MACHINE
DEFAULT VALUE
MACHINE
HUB
10.34.194.241
INFLUENCE ON THE LEFT DEVICE WHEN PROBLEM OCCURS AT THE RIGIHT DEVICE
CRITICAL
LESS CRITICAL
NO INFLUENCE
INFLUENCE ON THE RIGHT DEVICE WHEN PROBLEM OCCURS AT THE LEFT DEVICE
COMMENT
OK
CANCEL
HELP

FIG.3

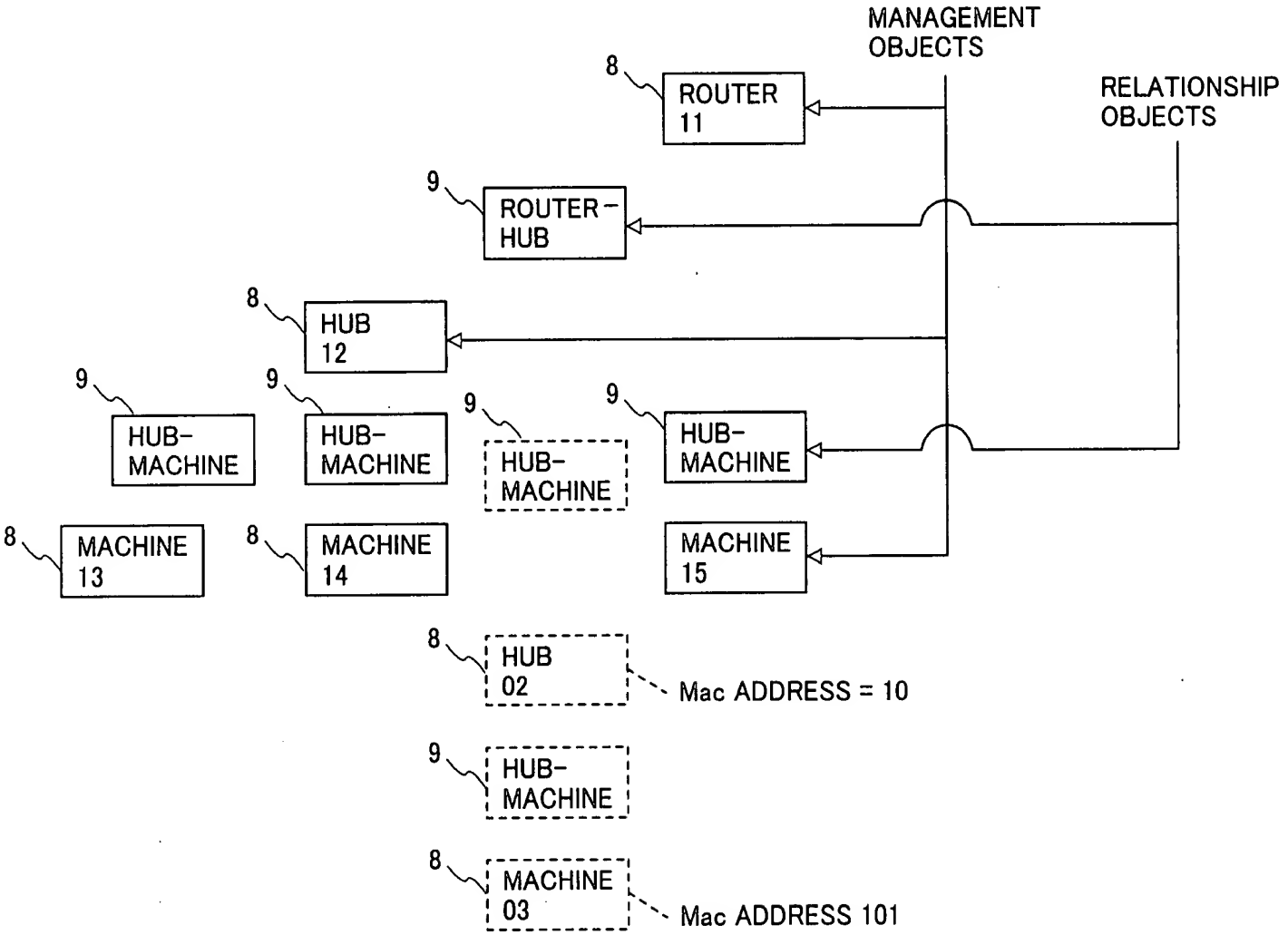

MANAGEMENT OBJECTS
RELATIONSHIP OBJECTS
8
ROUTER 11
9
ROUTER-HUB
8
HUB 12
9
HUB-MACHINE
9
HUB-MACHINE
9
HUB-MACHINE
9
HUB-MACHINE
8
MACHINE 13
8
MACHINE 14
MACHINE 15
8
HUB 02
Mac ADDRESS = 10
9
HUB-MACHINE
8
MACHINE 03
Mac ADDRESS 101

FIG.4

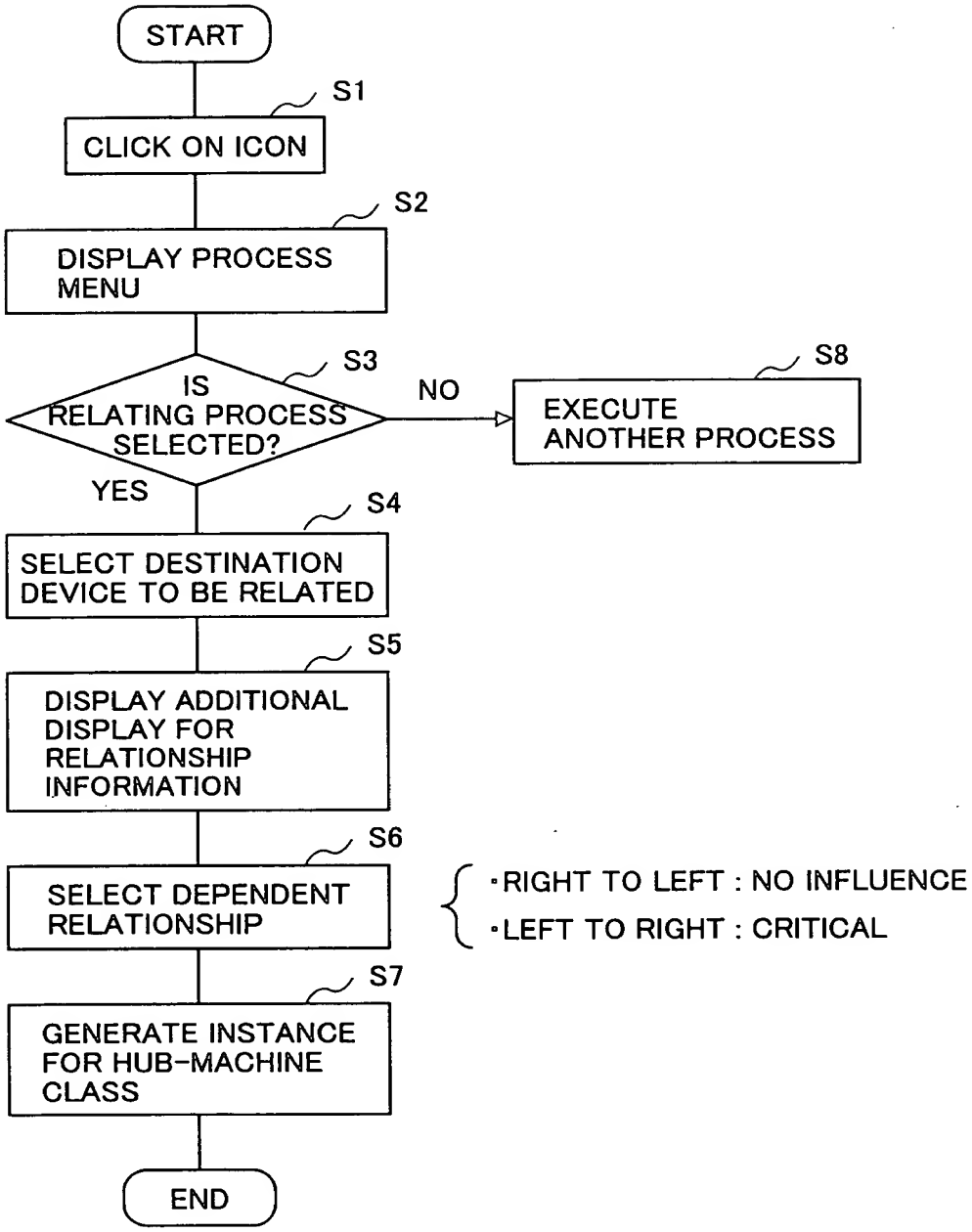

START
S1
CLICK ON ICON
S2
DISPLAY PROCESS MENU
S3
IS RELATING PROCESS SELECTED?
NO
S8
EXECUTE ANOTHER PROCESS
YES
S4
SELECT DESTINATION DEVICE TO BE RELATED
S5
DISPLAY ADDITIONAL DISPLAY FOR RELATIONSHIP INFORMATION
S6
SELECT DEPENDENT RELATIONSHIP
• RIGHT TO LEFT : NO INFLUENCE
• LEFT TO RIGHT : CRITICAL
S7
GENERATE INSTANCE FOR HUB-MACHINE CLASS
END

FIG.5

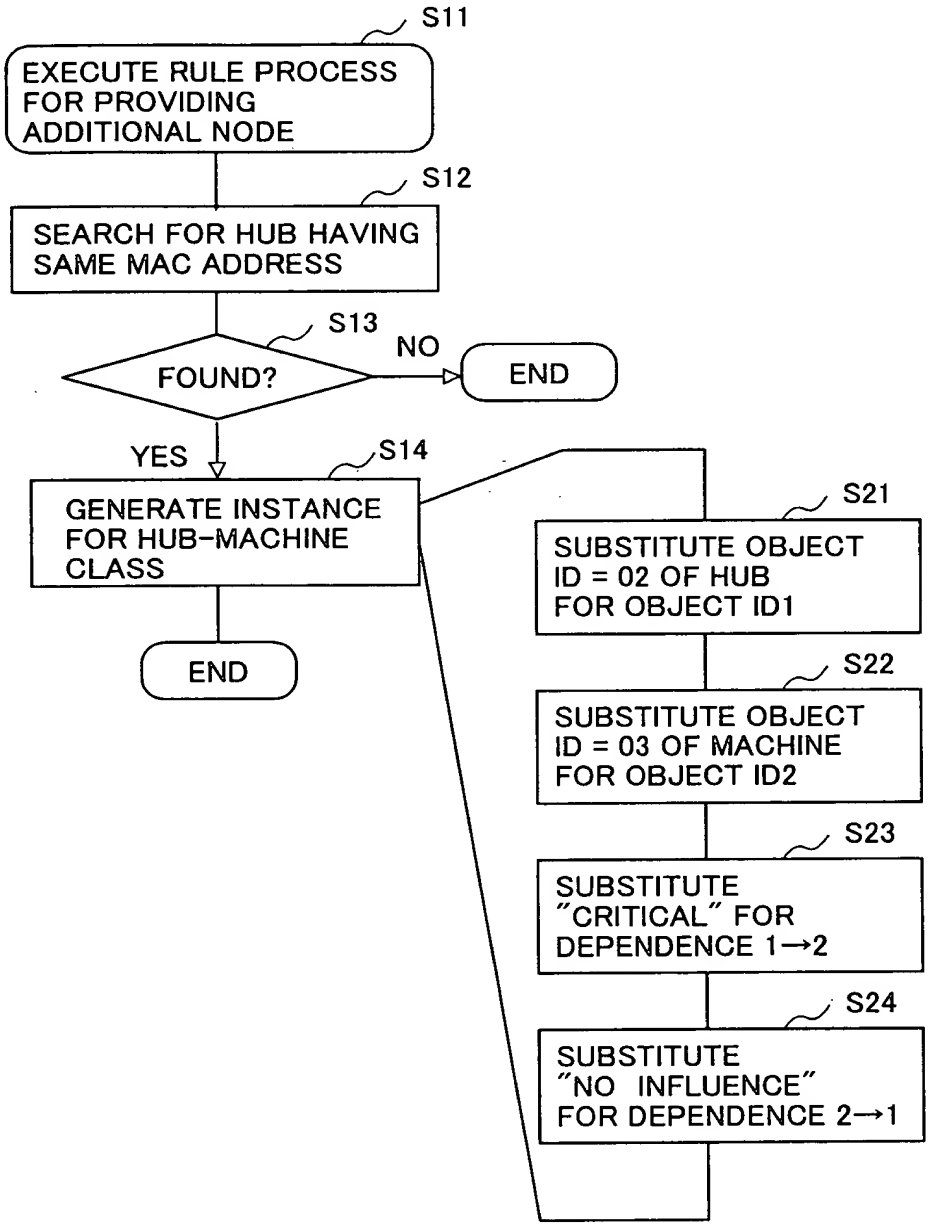


FIG.6

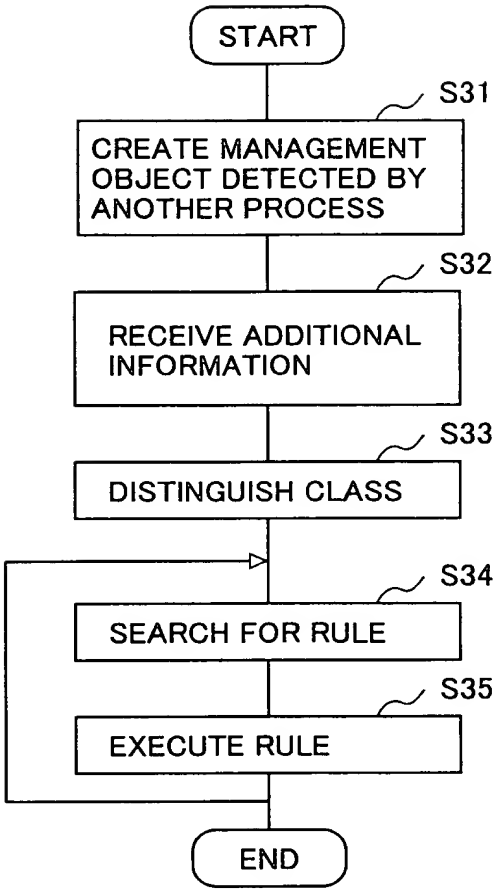
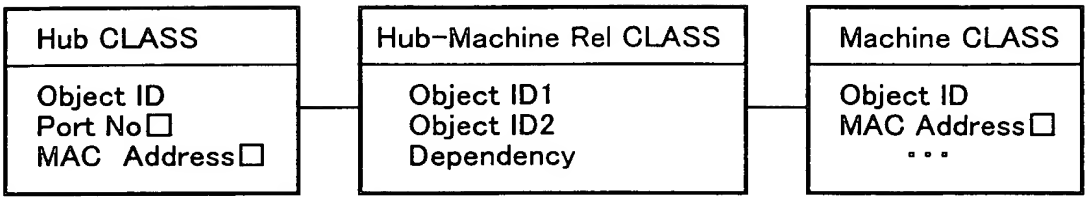

START
S31
CREATE MANAGEMENT OBJECT DETECTED BY ANOTHER PROCESS
S32
RECEIVE ADDITIONAL INFORMATION
S33
DISTINGUISH CLASS
S34
SEARCH FOR RULE
S35
EXECUTE RULE
END

FIG.7



Hub CLASS : INDICATE HUB
Machine CLASS : INDICATE MACHINE
Hub-Mchine Rel CLASS : INDICATE RELATIONSHIP BETWEEN INSTANCE OF MACHINE CLASS
Object ID : ID IDENTIFYING INSTANCE OF CLASS
Port No : EACH PORT NUMBER OF HUB(ARRAY)
MAC Address : PORT OF HUB AND MAC ADDRESS FOR INTERFACE OF MACHINE
Object ID1/2 : INSTANCE ID RELATED BY Hub-Machin Rel CLASS
Dependency : DEPENDENT RELATIONSHIP OF INSTANCE RELATED BY Hub-Machine Rel CLASS

FIG.8

RULE 1 [
CLASS1 OF MANAGEMENT OBJECT TO BE MANAGED:
Hub CLASS
CLASS2 OF MANAGEMENT OBJECT TO BE MANAGED:
Machine CLASS
CONDITION:
CLASS OF RELATIONSHIP OBJECT TO BE GENERATED WHERE MAC Address PROPERTY FOR CLASS1 IS SAME AS MAC Address PROPERTY FOR CLASS 2
CLASS OF RELATIONSHIP OBJECT TO BE GENERATED:
Hub-Machine Rel CLASS
PROPERTY OF RELATIONSHIP OBJECT TO BE GENERATED:
Dependency PROPERTY ← INSTANCE OF CLASS 2 DEPENDS ON INSTANCE OF CLASS 1
Dependency PROPERTY ← INSTANCE OF CLASS 1 DOES NOT INFLUENCE INSTANCE OF CLASS 2

FIG.9

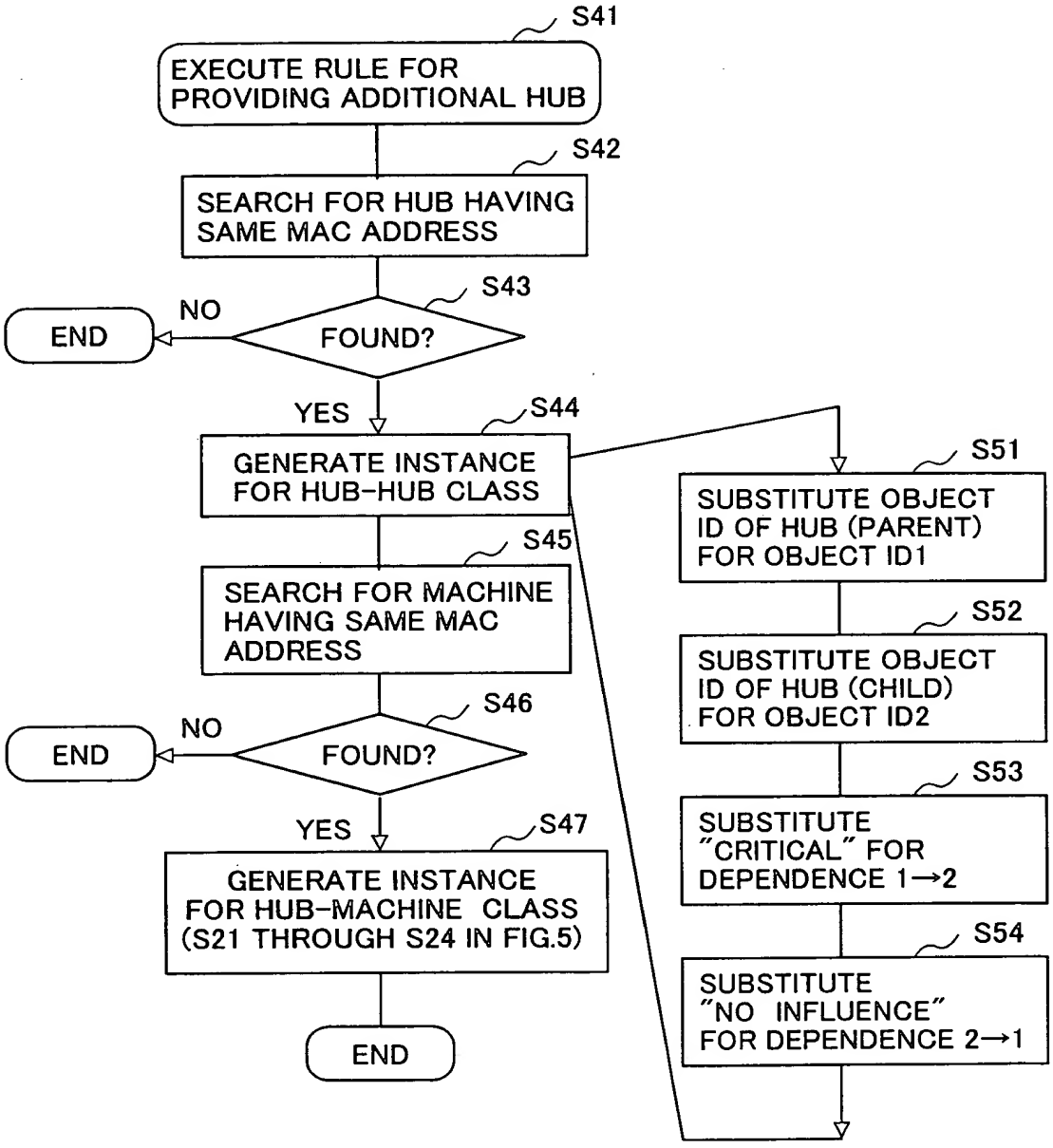


FIG.10A

HUB ID	OBJECT ID	MAC ADDRESS CONNECTED TO PORT		OWN MAC ADDRESS	
HUB0	02	0	MAC 100		
		1	MAC101	10	
			⋮		

FIG.10B

MACHINE ID	OBJECT ID	MAC ADDRESS	
MACHINE	03	MAC 1	

FIG.10C

HUB-MACHINE ID	OBJECT ID1	OBJECT ID2	DEPENDENCE 1 → 2	DEPENDENCE 2 → 1
HUB-MACHINE	02 (PARENT)	03 (CHILD)	CRITICAL	NO INFLUENCE

FIG.11

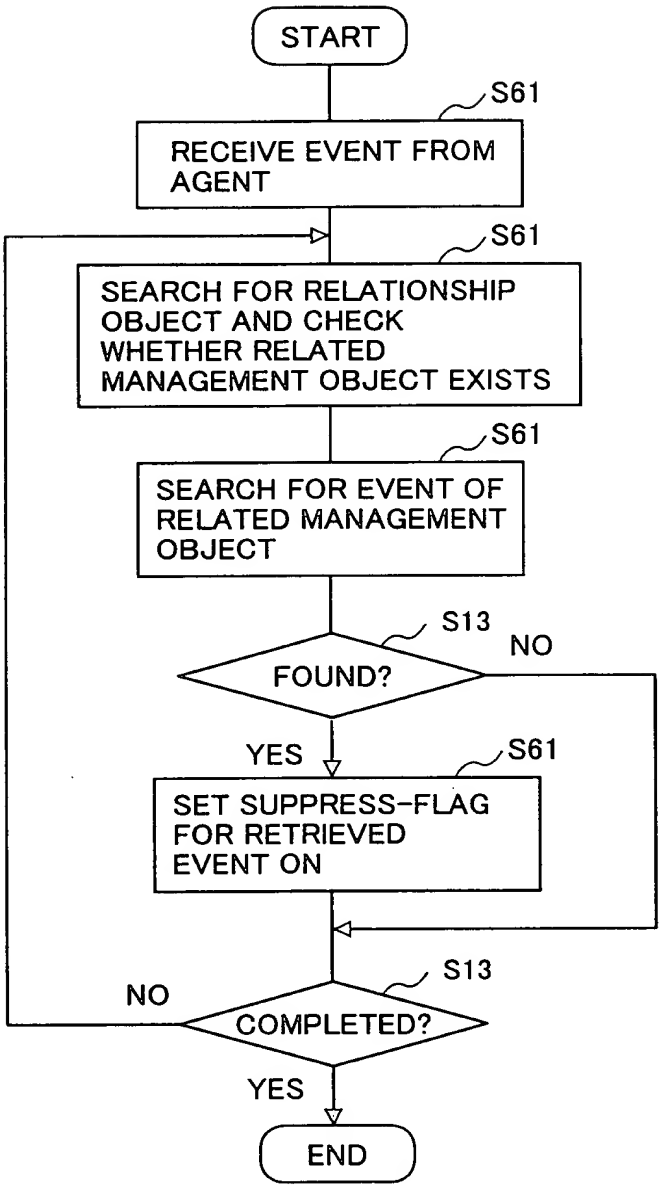
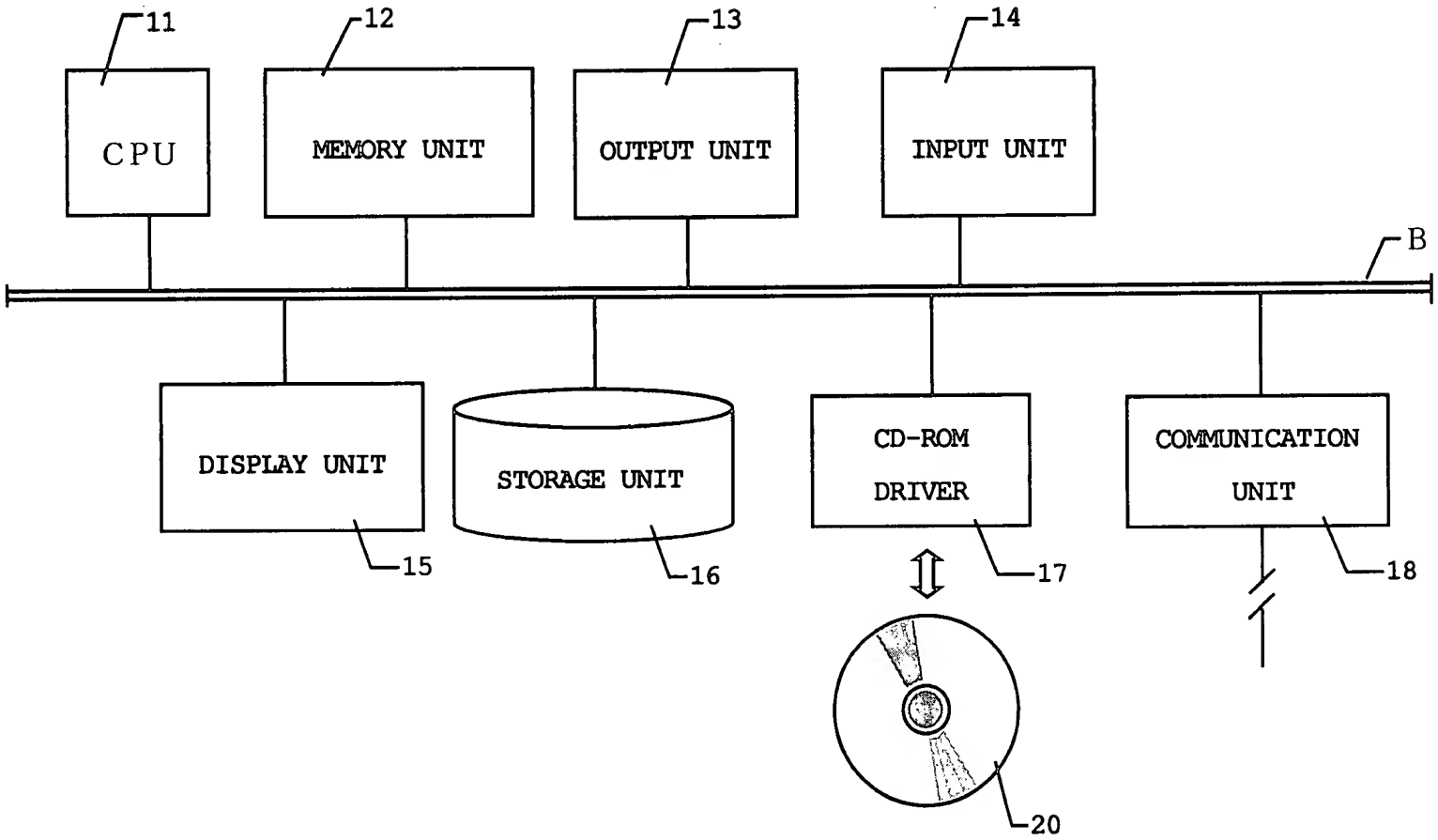

START
S61
RECEIVE EVENT FROM AGENT
S61
SEARCH FOR RELATIONSHIP OBJECT AND CHECK WHETHER RELATED MANAGEMENT OBJECT EXISTS
S61
SEARCH FOR EVENT OF RELATED MANAGEMENT OBJECT
S13
FOUND?
NO
YES
S61
SET SUPPRESS-FLAG FOR RETRIEVED EVENT ON
S13
COMPLETED?
NO
YES
END

FIG.12

10

EVENT ID	OBJECT ID	SUPPRESSION STATUS (SUPPRESS-FLAG)	
00	HUB ID	OFF	
01	MACHINE ID	ON	
		(・DEGRADE CRITICAL LEVEL)	

FIG. 13


11
12
13
14
CPU
MEMORY UNIT
OUTPUT UNIT
INPUT UNIT
B
DISPLAY UNIT
STORAGE UNIT
CD-ROM DRIVER
COMMUNICATION UNIT
15
16
17
18
20